

Notice of Allowability

Applicati n N .

10/662,882

Examiner

Sarah Song

Applicant(s)

ALBERT, JACQUES

Art Unit

2874

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 16 September 2003.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ The drawings filed on 16 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 0404
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Carey on June 2, 2004.

The application has been amended as follows:

In the specification on page 1, below the heading "CROSS REFERENCE TO RELATED APPLICATION", please insert —, now abandoned—after "December 6, 2001".

In claim 1, line 2, change "ot" to —of—.

In claims 4 and 15, delete "such as brass".

In claims 5 and 16, delete "such as aluminum".

In claim 8, the last line, change "structure;" to —structure. —.

In claim 17, line 2, insert a period —.—after "grating".

In claim 18, line 1, change "closure" to —securing—.

The above amendments resolve minor informalities.

DETAILED ACTION

Information Disclosure Statement

2. The prior art documents submitted by the applicant in the Information Disclosure Statement filed on April 23, 2004 have all been considered and made of record (note the attached copy of form PTO-1449).

Drawings

3. This application has been filed with two (2) sheets of drawings, which have been approved by the Examiner.

Allowable Subject Matter

4. Claims 1-18 are allowed.

5. The following is an examiner's statement of reasons for allowance: the prior art of record does not disclose or reasonably suggest, either alone or in combination, a temperature compensating package for an optical fiber device comprising a support structure of a material having a negative coefficient of thermal expansion; and a securing means located in the support structure for securing opposed ends of an optical fiber device passing therethrough, at least one of said securing means being of a material having a positive CTE and adjustable lengthwise.

6. Lachance et al. (U.S. Patent Application Publication 2002/0141700) is the closest prior art of record. Lachance et al. discloses a temperature compensation package of a composite structure such that the optical fiber within the structure contracts upon heating and thus exhibits an overall negative coefficient of thermal expansion (see paragraphs [0037] and [0046]). However, the support structure 13 of Lachance et al. is disclosed as having a positive coefficient of thermal expansion (see paragraphs see paragraph [0063], wherein silica and quartz have

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positive CTEs). Lachance et al. does not disclose or suggest a support structure 13 of a material having a negative coefficient of thermal expansion.

7. Similarly Engelberth (U.S. Patent 5,991,483), Lin (U.S. Patent 6,374,015) and Bettman et al. (U.S. Patent 6,449,402) and Montesanto et al. (U.S. Patent 6,498,891) each disclose a support structure of a material having a positive coefficient of thermal expansion.

8. Lachance et al. (U.S. Patent Application Publication 2002/0150335) also discloses an athermal package, but does not disclose or reasonably suggest a support structure of a material having a negative coefficient of thermal expansion.

9. Reddy (U.S. Patent 6,278,819) discloses a method and apparatus for manufacturing an optical fiber grating device comprising a support structure 16 of a material having a negative CTE. Reddy further discloses glass frits 18 and 20 for securing the fiber to the support structure, but does not disclose or suggest the glass frits to be adjustable lengthwise. Reddy also discloses a movable clamp 36 that is adjustable lengthwise, but does not disclose or suggest the movable clamp to be made of a material having a positive CTE. Furthermore, the movable clamp is not located in the support structure 16 of a material having a negative CTE.

10. Beall et al. (U.S. Patent 6,490,394) also discloses an athermal optical device comprising a support structure of a material having a negative CTE, but does not disclose or suggest securing means located in the support structure, at least one of said securing means being of a material having a positive CTE and adjustable lengthwise.

11. Therefore, since none of the prior art of record discloses or reasonably suggest, either alone or in combination all of the limitations of claim 1, claim 1 is allowable over the prior art of record. Claims 2-7 are allowable as depending from claim 1.

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12. Regarding claim 8, the prior art of record also does not disclose the method of providing thermal compensation comprising providing a support structure being of a material having a negative coefficient of thermal expansion and having securing means at each end, at least one of said securing means being of a material having a positive coefficient of thermal expansion and adjustable lengthwise. Therefore, claim 8 is allowable over the prior art of record. Claims 9-11 are allowable as depending from claim 8.

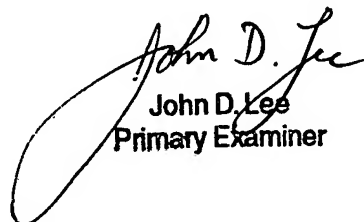
13. Claims 12-18 are allowable for at least the same reasons as noted above with respect to claims 1-7.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

14. Any inquiry concerning the merits of this communication should be directed to Examiner Sarah Song at telephone number 571-272-2359. Any inquiry of a general or clerical nature, or relating to the status of this application or proceeding should be directed to the receptionist at telephone number 571-272-1562 or to the technical support staff supervisor at telephone number 571-272-1615.


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John D. Lee
Primary Examiner